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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ALBERT F. MCGOVERN JR., JOHN MILLER, and  
DANIEL G. PRATT

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Appeal 2014-009994  
Application 13/448,077  
Technology Center 3600

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Before JILL D. HILL, LISA M. GUIJT, and ERIC C. JESCHKE,  
*Administrative Patent Judges.*

GUIJT, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Albert F. McGovern Jr. et al. (“Appellants”)<sup>1</sup> appeal under 35 U.S.C. § 134(a) from the Examiner’s decision to reject claims 1–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> According to Appellants, the real party in interest is Shure Acquisition Holdings, Inc. Appeal Br. 2.

### CLAIMED SUBJECT MATTER

Claims 1, 13, and 18 are the independent claims on appeal.  
Independent claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A shock mount apparatus for supporting a microphone, comprising:
  - a first frame member configured to receive the microphone;
  - a second frame member configured to receive a mounting apparatus; and
  - a plurality of members interconnecting the first frame member and the second frame member, the plurality of members being substantially non-elastic in an axial direction,wherein the first frame member is suspended from the second frame member by the plurality of members, and wherein the plurality of members are configured to provide damping of the first frame member relative to the second frame member by flexing.

### THE REJECTION

Claims 1–21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Schall (DE 1823744; pub. Dec. 22, 1960) and Lantero (US 4,586,689; iss. May 6, 1986).

### ANALYSIS

*Claims 1–3, 6, 8, 9, 11, and 12*

Regarding independent claim 1, the Examiner finds, *inter alia*, that Schall discloses a first frame member (fastening devices 2) configured to receive a microphone and a plurality of members (cord-like elements 3) interconnecting the first frame member and the second frame member

(carrier 4). Final Act. 3. The Examiner further finds that Schall's cord-like elements 3 are configured to provide damping of fastening devices 2 relative to carrier 4 by flexing because elements 3 "are flexible and therefore capable of damping vibrations between the frame members." *Id.* The Examiner further finds that although Schall does not explicitly disclose that the plurality of members are "substantially non-elastic in an axial direction," as required by claim 1, Lantero discloses flexible members (windings 11, 12) "made of a metal material . . . in the form of cable windings or twisted wires . . . that interconnect frame members" (*id.* at 7 (citing Lantero col. 4, ll. 30–36, Figs. 1, 2)), noting that Appellants' Specification describes the flexible members as also "being twisted wire made out of a metal material" (*id.* (citing Spec. ¶¶ 32, 33)). The Examiner concludes that it would have been obvious "to modify the flexible members of Schall to be curved portions of twisted metal rope as disclosed by Lantero since Lantero states that such a modification would enable the device to independently or variably absorb vertical and horizontal stresses." *Id.* (citing Lantero, col. 1, ll. 59–65).

Appellants argue that the claim requires the first frame member to be configured to receive a microphone and "nowhere does Schall indicate elements 2 are 'configured to receive [a] microphone.'" Appeal Br. 5. The Examiner responds that fastening devices 2 "are in the form of knurled rings that are twisted to clamp or hold the microphone within the member 1." Ans. 10 (citing Schall, Figs. 3, 4).

Schall discloses that microphone holding apparatus 1 includes "fastening device 2 for fixing the microphone within the holding apparatus 1." Schall, p. 4, ll. 11–13. Schall further discloses that each of fastening devices 2 includes an inner ring 21 with a clamping tongue 22 and an outer

clamping ring 23 with a projection 24, wherein outer clamping ring 23 can be turned relative to inner ring 21 such that projection 24 moves from a thinner towards a thicker end of clamping tongue 22, whereby “the upper edge k of the [] tongue 22 is . . . pressed more and more forcefully to the inside and clamps the microphone in this way.” Schall, p. 5, l. 24–p. 6, l. 3, Figs. 3, 4. Thus, a preponderance of the evidence supports the Examiner’s finding that fastening devices 2 “receive a microphone,” as required by claim 1, because Schall discloses that *the microphone* is clamped within the fastening devices 2, as opposed to clamping onto or closing the ends of holding apparatus 1, as suggested by Appellants.

Appellants assert, for the first time in the Reply Brief, that fastening devices 2 of Schall cannot be the claimed first frame member because “a fastening member cannot constitute a ‘frame member.’” Reply Br. 2. We need not consider this new argument, which is deemed waived, and we decline to do so. *See* 37 C.F.R. § 41.41(b)(2). This new argument could have been presented in the Appeal Brief to address the outstanding rejection of record, but was not, and on the record before us, the absence of any opportunity for the Examiner to respond to this untimely argument precludes meaningful appellate review.

Appellants further argue that Lantero is concerned with damping very strong impacts and vibrations and does not suggest “the use of wire rope to dampen a very small stimulus that can move a low mass transducer diaphragm associated with a microphone.” Appeal Br. 6. The Examiner responds that the claim language is functional “and therefore [the prior art] only needs to be capable of performing the function.” Ans. 13. The Examiner also finds that “the prior art device would be capable of

performing such a function, since the object of Schall is to isolate or not transmit vibrations to the microphone . . . and Lantero discloses the use of wire rope to absorb a variety of loads or stresses including very small loads.” *Id.* (citing Lantero, col. 4, ll. 30–36).

Claim 1 recites the functional limitation: “wherein the plurality of members are configured to provide damping of the first frame member relative to the second frame member by flexing.” Appeal Br. 11, Claims App. Features of an apparatus claim may be recited either structurally or functionally. *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997). If the Patent Office has reason to believe that a functional limitation recited in an apparatus claim “may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.” *Id.* (quoting *In re Swinehart*, 439 F.2d 210, 213 (CCPA 1971)).

Appellants’ Specification describes the plurality of members as twisted rope “formed of any metal, alloy, composite, or high strength polymer” and that “[t]he wire rope comprises a plurality of wires twisted together, which . . . provides good energy absorption.” Spec. ¶¶ 32, 33. Lantero describes cables 3 nested between fixed bearing base 1 and upper base 2 as spiral wound cables (Lantero, col. 2, ll. 31–34) “which can be of various natures such as metal ropes (wire ropes) with and without core for high or medium weight and stresses, or in vegetable stranded or manmade fiber wires for small and very small loads and stresses as in the case of

electronic components” (*id.* at col. 4, ll 30–36).<sup>2</sup> In other words, Lantero’s cables 3 are configured to absorb different shock strengths from very small to large shocks, i.e., provide damping, between first and second members by flexing. *See* Lantero, col. 2, ll. 31–36; col. 4, ll. 30–36. Here, Appellant has not shown error in the Examiner’s finding that the device of Schall modified to include cables 3 of Lantero would be capable of performing the claimed function. *See* Final Act. 7; Ans. 10, 11. Accordingly, we sustain the Examiner’s decision.

Appellants further argue that the Examiner used impermissible hindsight in combining Schall and Lantero “because the Office Action offers no evidence that a person of ordinary skill in the art would implement the system of Lantero to dampen a microphone.” Appeal Br. 6. Appellants also argue that Lantero does not suggest the use of wire rope in a low mass transducer diaphragm associated with a microphone and “[o]n this basis, there can be no rationale for combining Schall and Lantero.” Reply Br. 3–4.

Appellants’ argument is not persuasive. Appellants fail to point to any reasoning or features gleaned solely from Appellants’ disclosure in the Examiner’s rejection. To the contrary and as stated *supra*, the Examiner’s rationale to modify the device of Schall, i.e., to independently or variably absorb vertical and horizontal stresses, is supported by Lantero. Final Act. 7 (citing Lantero, col. 1, ll. 59–65) (“This present invention has therefore the aim to devise . . . [a] shock absorber of the multiple cable type apt to ensure, in its various configurations, independent or variable absorption of the

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<sup>2</sup> Notably, although the Examiner relies upon cable windings made of metal (Final Act. 7), Lantero also discloses cable windings made of man-made fiber, i.e., high strength polymer, for absorbing the shock of small and very small loads (Lantero, col. 4, ll. 30–36).

horizontal and vertical stresses.”). Appellants have not explained why the Examiner’s rationale is in error.

Appellants also argue that Lantero is non-analogous art because it is not in the same field of endeavor or reasonably pertinent to the problem faced by the inventors because “Lantero fails to solve the problem of dampening highly sensitive transducers associated with a microphone.”

Reply Br. 4, *see also* Appeal Br. 6. The Examiner responds that Lantero is analogous art because the reference is reasonably pertinent to the problem faced by the inventors, i.e., “damping vibrations or providing a shock absorbing effect.” Final Act. 8–9; Ans. 13–14 (citations omitted).

Appellants’ argument is not persuasive. As discussed above, Lantero discloses that cables 3 are shock absorbers “used to a great extent to protect machines, equipment and precision instruments from shocks and vibrations” (Lantero, col. 1, ll. 6–9), which, as correctly determined by the Examiner, is pertinent to the problem faced by the inventor, i.e., reducing “motion of the microphone body that results in motion of the transducer diaphragm [that] can generate an unwanted electrical output and noise” (Spec. ¶ 3).

Appellants assert, for the first time in the Reply Brief, that one of skill in the art “would not simply replace the cord-like element of Schall with the windings 3, 11 of Lantero” (Reply Br. 6), and that Schall and Lantero could not be combined because the Examiner “fail[s] to explain how a person of ordinary skill in the art would modify the fastening devices 2 and support ring 4 of Schall with the plate 2, pin 8, disc 5, shim 13, spiral winding 3, sectional winding 11, and cable lengths 12 of Lantero to arrive at the claimed invention” (*id.*). *See id.* at 5–7. This new argument could have been presented in the Appeal Brief to address the outstanding rejection of



record, but was not. Here, the absence of any opportunity for the Examiner to respond to this untimely argument precludes meaningful appellate review, and thus, we decline to address this new argument. *See* 37 C.F.R.

§ 41.41(b)(2); *In re Hyatt*, 211 F.3d 1367, 1373 (Fed. Cir. 2000).

Accordingly, we sustain the Examiner’s rejection of independent claim 1. Appellants do not present separate arguments for the patentability of dependent claims 2, 3, 6, 8, 9, 11, and 12. Thus, we also sustain the Examiner’s rejection of claims 2, 3, 6, 8, 9, 11, and 12.

*Claims 13–15*

Appellants argue independent claim 13 is patentable for the reasons discussed *supra* regarding claim 1. Appeal Br. 7. Accordingly, we sustain the Examiner’s rejection of independent claim 13 for the reasons discussed *supra*. Appellants do not present separate arguments for the patentability of claims 14 and 15. Thus, we also sustain the Examiner’s rejection of claims 14 and 15.

*Claims 18–20*

Claim 18 recites “a first frame member comprising an upper ring-shaped frame member and a lower ring-shaped frame member . . . a second frame member . . . and a member interconnecting the first frame member and the second frame member.” Appeal Br. 13; Claims App. The Examiner finds, *inter alia*, that Schall discloses “an upper ring-shaped frame member (right side 2, Fig. 1) and a lower ring-shaped frame member (left side member 2, Fig. 1) . . . and a member (3, Fig. 1) interconnecting the first frame member and second frame member (see Fig. 1–2).” Final Act. 6 (citations omitted).

Appellants argue that “elements 2 cannot [be] the claimed ‘upper ring-shaped frame member’ and the ‘lower ring-shaped frame member’ because element 3 does not ‘interconnect’ elements 2 and element 4. Rather, element 3 is shown in Figure 1 as being connected to element 1 and element 4.” Appeal Br. 7; *see* Reply Br. 7. The Examiner responds that the claim only requires the member to connect the first frame member and the second frame member and that “microphone support 1 which includes tightening members 2 is suspended, attached or interconnected to the ring 4 via the members 3.” Ans. 15. Appellants argue that cord-like elements 3 cannot be connected to fastening devices 2 because during the twisting operation to secure the microphone in fastening devices 2 “the cord-like elements 3 would become twisted and tangled rendering the Schall device inoperable for its intended purpose of securing the microphone within the holding apparatus 1.” Reply Br. 8.

As noted by the Examiner, the claim only requires the member to *interconnect* the first member and the second member and does not require the member to be connected *directly* to the upper ring-shaped member and the lower ring-shaped member, i.e., the member may indirectly interconnect the first member and second member. Appellants argue that cord-like elements 3 do not interconnect fastening devices 2 and carrier 4 because cord-like elements 3 are not directly connected to fastening devices 2 (Appeal Br. 7; Reply Br. 7), however, this argument is not commensurate with the scope of the claim and Appellants have provided no definition for the claim term “interconnect” that would exclude indirect connections. Thus, Appellants’ argument does not apprise us of error in the Examiner’s finding.

Appellants assert, for the first time in the Reply Brief, that “fasteners 2 [of Schall] cannot be the claimed ‘upper ring-shaped frame member’ and the ‘lower ring-shaped frame member’ because . . . the fasteners 2 are not frame members.” Reply Br. 7. This new argument could have been presented in the Appeal Brief to address the outstanding rejection of record, but was not. Here, the absence of any opportunity for the Examiner to respond to this untimely argument precludes meaningful appellate review. *See* 37 C.F.R. § 41.41(b)(2); *Hyatt*, 211 F.3d at 1373.

Appellants further argue that neither Schall nor Lantero discloses or suggests that the member is configured to help reduce the amount of vibration encountered by the first frame member relative to a subsonic and an audible frequency range by flexing, as required by claim 18. Appeal Br. 7. The Examiner responds that the modified Schall device is capable of performing this function because “the Lantero device discloses using wire rope and modifying its characteristics to attenuate or absorb stresses and vibrations of a variety of strengths ranging from high load to very small load.” Ans. 15–16.

Appellants’ argument is not persuasive. As discussed *supra* regarding the similar limitation regarding damping of the first member in claim 1, Appellants have not identified any structural differences between Schall’s device, as modified by Lantero, and the claimed invention or explained why the Examiner’s finding that the modified device would be capable of performing the claimed function is in error.

Appellants also argue that claim 18 is patentable for the reasons discussed *supra* regarding claim 1. As discussed *supra*, these arguments are not persuasive.

Accordingly, we sustain the Examiner rejection of independent claim 18. Appellants do not present separate arguments for the patentability of dependent claims 19 and 20. Thus, we also sustain the Examiner's rejection of claims 19 and 20.

*Claims 5 and 21*

Claims 5 recites “wherein each of the members are fixed to the upper frame member at a first end and the lower frame member at a second end and wherein the members are fixed to the second frame member at a middle portion of the members.” Appeal Br. 11, Claims App. Claim 21 similarly recites “wherein the member has a first end fixed to the upper frame member of the first frame member a middle portion fixed to the second frame member and a second end fixed to the lower frame member of the first frame member.” *Id.* at 13. The Examiner finds, *inter alia*, that Figures 1 and 2 of Schall disclose the members fixed to the second frame member at a middle portion of the flexible members. Final Act. 4, 8. Appellants argue that “[a]lthough element 3 engages element 4, nothing in Schall explicitly teaches that ‘the members are fixed to the second frame member at a middle portion of the members.’” Appeal Br. 8. A preponderance of the evidence supports the Examiner's finding that Figures 1 and 2 of Schall depict cord-like element 3 passing through carrier 4 at least at some portion of cord-like element 3 that is between first and second ends of cord-like element 3, which is broadly claimed as “a middle portion.” Appellants have not otherwise explained why the Examiner's finding is in error.

Accordingly, we sustain the Examiner's rejection of claims 5 and 21.

*Claims 4, 7, 10, 16, and 17*

Appellants argue that each of claims 4, 7, 10, 16, and 17 are patentable for the reasons discussed *supra* regarding claim 18. Appeal Br. 8–9. For the reasons discussed *supra*, these arguments are not persuasive. Accordingly, we sustain the Examiner’s rejection of claims 4, 7, 10, 16, and 17.

#### DECISION

We AFFIRM the Examiner’s rejection of claims 1–21.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED